

Johnson, Sabrina O

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Thursday, March 7, 2019 11:31 AM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Cooper, Dan; Lebron, Carlo
Subject: Manatee County Lena Road Landfill Monthly Report February 2019
Attachments: February 2019 Report.pdf

Mr. Tafuni,

Attached is the Manatee County Lena Road Landfill Monthly Report (for February 2019) which includes the following:

- Monthly Water Balance Report (Exhibit A)
- Monthly Leachate Tracking Summary - 2019 (Exhibit B)
- Monthly Leachate Meter Readings
- Monthly Rainfall
- Monthly Groundwater Gradient Report

If you should have any questions concerning this report, please contact me at (813) 804-6714.

Thanks

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March 7, 2019
File No. 09217088.10

Mr. Steven Tafuni
Florida Department of Environmental Protection
Southwest District Office - Solid Waste Section
130501 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

Subject: Manatee County Lena Road Landfill
Monthly Report - February 2019

Dear Mr. Tafuni:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2019 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

Sincerely,



Shane R. Fischer, P.E.
Project Director
SCS Engineers

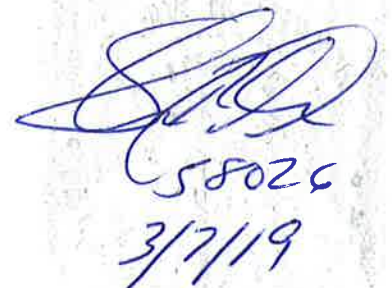


David Moreno, E.I.
Staff Professional
SCS Engineers

SRF/DJM

cc: C. Mike Gore, Manatee County Utilities Department Director
Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor

Enclosures



58026
3/7/19



EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
February 2019**

A	B	C	D	E	F	G	H	I
DATE	LEACHATE STAGE I Lift Station 1 (gallons)	LEACHATE STAGE I Lift Station 2 (gallons)	LEACHATE STAGE I TOTAL (gallons)	LEACHATE STAGE II TOTAL (gallons)	LEACHATE STAGE III TOTAL (gallons)	TOTAL LEACHATE PUMPED (gallons)	RAINFALL (inches)	RAINFALL (gallons)
1-Feb-19	25,142	2,639	27,781	116,224	31,811	175,816	0.00	0
2-Feb-19	0	0	0	0	0	0	0.27	2,096,986
3-Feb-19	0	0	0	0	0	0	0.00	0
4-Feb-19	85,632	7,857	93,489	314,773	90,976	499,238	0.00	0
5-Feb-19	28,306	2,626	30,932	105,147	28,198	164,277	0.00	0
6-Feb-19	26,572	2,658	29,230	103,888	31,778	164,896	0.00	0
7-Feb-19	26,748	2,451	29,199	105,620	28,350	163,169	0.00	0
8-Feb-19	26,160	2,675	28,835	104,879	28,478	162,192	0.00	0
9-Feb-19	0	0	0	0	0	0	0.00	0
10-Feb-19	0	0	0	0	0	0	0.00	0
11-Feb-19	76,766	7,994	84,760	327,085	81,680	493,525	0.00	0
12-Feb-19	28,344	2,650	30,994	100,144	31,656	162,794	0.11	854,328
13-Feb-19	28,964	2,673	31,637	107,904	28,590	168,131	0.34	2,640,649
14-Feb-19	25,559	2,759	28,318	100,480	24,324	153,122	0.00	0
15-Feb-19	30,283	2,898	33,181	119,984	32,066	185,231	0.00	0
16-Feb-19	0	0	0	0	0	0	0.00	0
17-Feb-19	0	0	0	0	0	0	0.00	0
18-Feb-19	0	0	0	0	0	0	0.00	0
19-Feb-19	108,428	10,848	119,276	396,528	102,042	617,846	0.00	0
20-Feb-19	21,712	28,512	50,224	107,584	126,484	284,292	0.00	0
21-Feb-19	24,062	4,686	28,748	90,288	255,694	374,730	0.50	3,883,308
22-Feb-19	22,008	25,274	47,282	113,168	192,840	353,290	0.00	0
23-Feb-19	0	0	0	0	0	0	0.00	0
24-Feb-19	0	0	0	0	0	0	0.00	0
25-Feb-19	69,630	25,824	95,454	303,184	357,942	756,580	0.00	0
26-Feb-19	20,898	9,786	30,684	130,128	103,882	264,694	0.91	7,067,621
27-Feb-19	20,246	8,691	28,937	138,683	85,182	252,802	0.10	776,662
28-Feb-19	23,308	9,064	32,372	120,597	83,264	236,233	0.00	0
TOTAL	718,768	162,565	881,333	3,006,288	1,745,237	5,632,858	2.23	17,319,554
Leachate Pumped as Percentage of Rainfall				14.3%	42.1%	43.7%		

Column Notes:

A - Date of reading.								
B - Leachate pumped (gallons) from Stage I by lift station 1.								
C - Leachate pumped (gallons) from Stage I by lift station 2.								
D - Total Stage I leachate pumpage (B+C).								
E - Leachate pumped (gallons) from Stage II.								
F - Leachate pumped (gallons) from Stage III.								
G - Total leachate pumped to WWTP storage tank (D+E+F).								
H - Rainfall (inches) recorded on this date.								
I - Rainfall (gallons) calculated based on open area (H x Area x 27,156 gal/acre-in).								

Comments

"0" = no data recorded

EXHIBIT B

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
 LENA ROAD LANDFILL
 MONTHLY LEACHATE TRACKING SUMMARY -- 2019

	B	C	D	E	F	G	H	I	J
MONTH	STAGE I	STAGE II	STAGE III	TOTAL			STAGE I	STAGE II	STAGE III
	LEACHATE (gallons)	LEACHATE (gallons)	LEACHATE (gallons)	LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	LEACHATE/ RAINFALL (%)	LEACHATE/ RAINFALL (%)	LEACHATE/ RAINFALL (%)
JANUARY	985,946	3,653,440	924,189	5,563,575	3.48	27,027,824	10.2%	32.8%	14.8%
FEBRUARY	881,333	3,006,288	1,745,237	5,632,858	2.23	17,319,554	14.3%	42.1%	43.7%
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	1,867,279	6,659,728	2,669,426	11,196,433	5.71	44,347,377	11.8%	42.1%	16.9%

Notes:

1. (B) Total leachate pumped from Stage I.
2. (C) Total leachate pumped from Stage II
3. (D) Total leachate pumped from Stage III
4. (E) Total leachate (Column B+C+D) pumped to WWTP storage tank.
5. (F) Total rainfall in inches.
6. (G) Total rainfall in gallons (Stage I, II, and III Open Area of 286-acres x Rainfall)
7. (H) Stage I leachate as a percentage of rainfall.
8. (I) Stage II leachate pumped as a percentage of rainfall.
9. (J) Stage III leachate pumped as a percentage of rainfall.

Landfill Stage Land Area

	Stage I (acres)	Stage II (acres)	Stage III (acres)	TOTAL (acres)
Initial Cover	102.0	113.0	66.0	281.0
Intermed. Cover	0.0	5.0	--	5.0
Closed	30.0	0.0	--	30.0
TOTAL	132.0	118.0	66.0	316.0
Open Area	102.0	118.0	66.0	286.0

LEACHATE METER READINGS

DATE	LEACHATE METERS				STORMWATER S.G.		COMMENTS	NAME (Initials)
	#1	#2	#3	#4	#1	#2		
	2/1/19	22713076	4190251	30982040	19614737	34.16		
2/2/19								
2/3/19								
2/4/19	2279878	41981085	31013016	196162149	34.2	32.32	OK	J.M
2/5/19	22827014	4200734	31041241	196561296	34.16	32.3	OK	J.M
2/6/19	22853586	4203392	31072992	196671184	34.18	32.30	OK	cm
2/7/19	22880334	42058455	31101342	196776304	34.16	32.28	OK	J.M
2/8/19	22906494	4208518	31129820	196881688	34.16	32.24	OK	J.M
2/9/19								
2/10/19								
2/11/19	22983216	4216512	3121150	197208768	34.16	32.20	OK	J.M
2/12/19	23011634	4219162	31243156	197308212	34.16	31.18	OK	J.M
2/13/19	23040568	42218355	31271746	197416816	34.16	31.16	OK	J.M
2/14/19	23066127	4224594	31296070	197512296	34.16	31.12	OK	J.M
2/15/19	23096410	4227492	31328136	197637280	34.15	31.41	OK	A.v.k
2/16/19								
2/17/19								
2/18/19								
2/19/19	23204838	4238340	31430178	198033808	34.12	31.14	OK	A.v.k
2/20/19	23226550	4246852	3155662	198141392	34.13	31.14	OK	cm
2/21/19	23250612	4271538	31812356	198281680	34.12	31.14	OK	cm
2/22/19	23272670	4296812	319005192	198344880	34.12	31.14	OK	cm
2/23/19								
2/24/19								
2/25/19	23292250	4322636	32363138	198648000	34.20	31.38	OK	cm
2/26/19	23363146	4332422	32467020	198778160	34.17	31.35	OK	R.B
2/27/19	23383894	4341113	32552202	198916880	34.19	31.46	OK	R.B
2/28/19	23406702	4350177	32638942	199037440	34.19	31.50	OK	R.B.

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2019 Feb	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.051	42.50	40.50
2	0.27	0.034	42.50	40.50
3	0.00	0.035	42.50	40.50
4	0.00	0.031	42.50	40.50
5	0.00	0.029	42.50	40.50
6	0.00	0.029	42.50	40.50
7	0.00	0.029	42.50	40.50
8	0.00	0.028	42.50	40.50
9	0.00	0.030	42.50	40.50
10	0.00	0.029	42.50	40.50
11	0.00	0.029	42.50	40.50
12	0.11	0.030	42.50	40.50
13	0.34	0.029	42.50	40.50
14	0.00	0.029	42.50	40.50
15	0.00	0.030	42.50	40.50
16	0.00	0.030	42.50	40.50
17	0.00	0.029	42.50	40.50
18	0.00	0.026	42.50	40.50
19	0.00	0.037	42.50	40.50
20	0.00	0.063	42.50	40.50
21	0.50	0.052	42.50	40.50
22	0.00	0.046	42.50	40.50
23	0.00	0.045	42.50	40.50
24	0.00	0.042	42.50	40.50
25	0.00	0.032	42.50	40.50
26	0.91	0.045	42.50	40.50
27	0.10	0.048	42.50	40.50
28	0.00	0.035	42.50	40.50
29				
30				
31				
TOTAL	2.23	1.002		
AVG		0.036		
MIN				
MAX	0.91	0.063		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: February 2019

Piezometers Inside Slurry Wall				Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	NA	NA	GW-1	38.68	NA
P-2	42.32	NA	NA	GW-2	40.92	NA
P-3	40.36	25.46	<i>inward</i>	GW-3	39.40	32.61
P-4	40.78	22.08	<i>inward</i>	GW-4	40.53	32.03
P-5	40.73	21.34	<i>inward</i>	GW-5	39.90	31.68
P-6	40.74	19.94	<i>inward</i>	GW-6	38.95	30.96
P-7	40.60	19.71	<i>inward</i>	GW-7	39.49	29.31
P-8	40.21	19.72	<i>inward</i>	GW-8	39.75	28.43
P-9	39.97	23.66	<i>inward</i>	GW-9	39.65	28.80
P-10	39.86	19.58	<i>inward</i>	GW-10	38.34	28.75
P-11	40.52	23.93	<i>inward</i>	GW-11	38.26	31.06
P-12	43.28	29.67	<i>inward</i>	GW-12	42.09	32.54
P-13	44.78	30.77	<i>inward</i>	GW-13	44.79	34.14
P-14	45.09	29.92	<i>inward</i>	GW-14	39.63	34.43
P-15	45.57	31.03	<i>inward</i>	GW-15	42.33	35.13
P-16	44.67	31.15	<i>inward</i>	GW-16	44.41	35.42
P-17	44.28	30.36	<i>inward</i>	GW-17	42.19	34.07
P-18	43.16	24.16	<i>inward</i>	GW-18	41.76	32.09
P-19	42.91	23.13	<i>inward</i>	GW-19	41.20	31.49
P-20	42.54	25.74	<i>inward</i>	GW-20	41.00	30.49
P-21	42.23	25.10	<i>inward</i>	GW-21	40.94	27.75
P-22	42.06	23.98	<i>inward</i>	GW-22	41.53	27.63
P-23	42.08	22.46	<i>inward</i>	GW-23	40.91	29.81
P-24	42.03	20.01	<i>inward</i>	GW-24	41.37	29.91
P-25	42.16	19.23	<i>inward</i>	GW-25	41.11	31.08
P-26	42.50	19.20	<i>inward</i>	GW-26	41.44	32.48
P-27R	42.73	19.70	<i>inward</i>	GW-27R	40.90	32.41

NA = Not Applicable - wells and piezometers abandoned in March 2016

Wells (GW-18 through GW-27R) and piezometers (P-18 through P-27R) installed in April 2016

Date Data Collected: 02/26/2018